

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (*Currently Amended*) A method ~~Method~~ for enabling a user registered in an Network Access Server as already connected to a host Virtual Private Network~~[[,]]~~ ~~called host Virtual Private Network~~, to communicate with at least one communication device outside of said host Virtual Private Network, said Network Access Server having access over a data communication network to said communication device and to a plurality of Virtual Private Networks including ~~comprising~~ said host Virtual Private Network, wherein said method comprises ~~being~~ ~~characterized in that it comprises a step of~~ sending messages belonging to a communication between said user and said communication device over a logical channel between said Network Access Server and said communication device, said logical channel referring to an identifier of said host Virtual Private Network to which said user is currently connected.

2. (*Currently Amended*) The method ~~Method~~ according to claim 1, wherein said method ~~characterized in that it further comprises the steps of:~~

detecting at said Network Access Server a message from said user destined to said communication device; and

forwarding said message from said Network Access Server to said communication device over the logical channel referring to the identifier of said Virtual Private Network.

3. (*Currently Amended*) The method Method according to claim 1, wherein said method
~~characterized in that it~~ further comprises the steps of:

detecting a message from said communication device being received at said Network
Access Server on the logical channel referring to the identifier of a Virtual Private Network, said
message containing a user destination address;

determining a user registered in said Network Access Server as already connected to said
Virtual Private Network and corresponding to said destination address; and

forwarding said message from said Network Access Server to said user.

4. (*Currently Amended*) The method Method according to claim 1, wherein characterized
~~in that~~ said messages belonging to the communication between said user and said
communication device are encapsulated in data packets, said data packets comprising a field
containing said identifier of said host Virtual Private Network or an indication derived from of
said identifier.

5. (*Currently Amended*) The method Method according to claim 4, wherein characterized
~~in that~~ said messages belonging to the communication between said user and said
communication device are sent over a tunnel having said identifier of said host Virtual Private
Network as tunnel identifier.

6. (*Currently Amended*) ~~The method Method~~ according to claim 1, wherein ~~characterized~~
~~in that~~ said messages contain IP packets comprising an IP address of said user.

7. (*Currently Amended*) ~~The method Method~~ according to claim 1, wherein ~~characterized~~
~~in that~~ said communication device is a server belonging to a local Virtual Private Network[[,]]
~~called local Virtual Private Network~~, associated to said Network Access Server and different
from said host Virtual Private Network.

8. (*Currently Amended*) A Network Access Server for enabling a communication
between a user and a communication device, said user being registered in said Network Access
Server as already connected to a host Virtual Private Network, ~~called host Virtual Private~~
~~Network~~, said communication device being outside of said host Virtual Private Network, said
Network Access Server being able to access to a database associating an identifier of said user to
an identifier of said host Virtual Private Network, said Network Access Server comprising being
~~characterized in that it further comprises~~ means for sending messages originating from said user
and destined to said communication device on a logical channel between said Network Access
Server and said communication device, said logical channel referring to said identifier of said
host Virtual Private Network to which said user is currently connected.

9. (*Currently Amended*) A Network Access Server for identifying ~~univocally retrieving~~ a user, ~~from out of~~ a plurality of users, to which a message sent by a communication device and received at said Network Access Server ~~is destined~~, said user being already connected over said Network Access Server ~~access server~~ to a Virtual Private Network not included in ~~comprising~~ said communication device, said Network Access Server being able to access to a database associating an identifier of said user to an identifier of said Virtual Private Network to which said user is already connected, said Network Access Server comprising: ~~being characterized in that it comprises~~

a logical channel controller for determining a logical channel identifier of one logical channel on which said message is received at said Network Access server; and

means for identifying ~~retrieving~~ the user to which said message is destined, according to said logical channel identifier and said user identifier ~~entry~~ in said database.

10. (*New*) A Network Access Server for enabling a communication between a user and a communication device, said user being registered in said Network Access Server as already connected to a host Virtual Private Network, said communication device being outside of said host Virtual Private Network, said Network Access Server being able to access to a database associating an identifier of said user to an identifier of said host Virtual Private Network, said Network Access Server comprising a forwarding engine for sending messages originating from said user and destined to said communication device on a logical channel between said Network

Access Server and said communication device, said logical channel referring to said identifier of said host Virtual Private Network to which said user is currently connected.

11. *(New)* The Network Access Server according to claim 10, further comprising a logical channel controller that directs the message on the logical channel between said Network Access Server and said communication device.

12. *(New)* A Network Access Server for identifying a user, from a plurality of users, to which a message sent by a communication device and received at said Network Access Server, said user being already connected over said Network Access Server to a Virtual Private Network not included in said communication device, said Network Access Server being able to access to a database associating an identifier of said user to an identifier of said Virtual Private Network to which said user is already connected, said Network Access Server comprising:

a logical channel controller for determining a logical channel identifier of one logical channel on which said message is received at said Network Access server; and

a database searcher for identifying the user to which said message is destined, according to said logical channel identifier and said user identifier in said database.

13. *(New)* The Network Access Server according to claim 12, further comprising a forwarding engine that forwards said message from said logical controller to said user after said user has been identified.